CLAIMS

What is claimed is:

1. A method, comprising:

receiving channel state information of a communication channel;

rescaling subcarrier power of a signal based on the channel state information; and

adjusting a modulation rate based on the channel state information.

2. A method as claimed in claim 1, wherein said rescaling and said adjusting maintain a constant bit error rate for at least one or more subcarriers of the signal.

3. A method as claimed in claim 1, wherein said rescaling includes turning off subcarriers of the signal with lower gain values.

4. A method as claimed in claim 1, wherein the modulation is trellis coded modulation.

5. A method as claimed in claim 1, wherein said adjusting includes selecting a modulation for a subcarrier when a signal-to-noise ratio per subcarrier of the communication channel is greater than a predetermined value, and selecting another

modulation when the signal-to-noise ratio per subcarrier of the communication channel is less than a predetermined value.

6. An article comprising:

a storage medium having stored thereon instructions that, when executed by a computing platform, result in signal modulation adapted to a channel state by:

receiving channel state information of a communication channel;

rescaling subcarrier power of a signal based on the channel state information; and

adjusting a modulation rate based on the channel state information.

7. An article as claimed in claim 6, wherein the instructions, when executed, further result in signal modulation adapted to a channel state by maintaining a constant bit error rate for at least one or more subcarriers of the signal.

8. An article as claimed in claim 6, wherein the instructions, when executed, further result in signal modulation adapted to a channel state by turning off subcarriers of the signal with lower gain values.

9. An article as claimed in claim 6, wherein the modulation is trellis coded modulation.

10. An article as claimed in claim 6, wherein the instructions, when executed, further result in signal modulation adapted to a channel state by selecting a modulation

for a subcarrier when a signal-to-noise ratio per subcarrier of the communication channel is greater than a predetermined value, and by selecting another modulation when the signal-to-noise ratio per subcarrier of the communication channel is less than a predetermined value.

11. An apparatus, comprising:

a modulation encoder to modulate a signal at a modulation rate based on channel state information of a communication channel; and

a weighting block to rescale subcarrier power of the signal based on the channel state information.

12. An apparatus as claimed in claim 1, wherein said modulation encoder and said weighting block maintain a constant bit error rate for at least one or more subcarriers of the signal.

13. An apparatus as claimed in claim 1, wherein said weighting block turns off subcarriers of the signal with lower gain values.

14. An apparatus as claimed in claim 1, wherein the modulation encoder is a trellis coded modulation encoder.

15. An apparatus as claimed in claim 1, wherein said modulation encoder selects a modulation on a subcarrier when a signal-to-noise ratio per subcarrier of the communication channel is greater than a predetermined value, and selects another modulation when the signal-to-noise ratio per subcarrier of the communication channel is less than a predetermined value.

16. An apparatus, comprising:

an orthogonal frequency division multiplexing transceiver; and

an omnidirectional antenna to couple to said orthogonal frequency division multiplexing transceiver;

said orthogonal frequency division multiplexing transceiver including a modulation encoder to modulate a signal at a modulation rate based on channel state information of a communication channel, and a weighting block to rescale subcarrier power of the signal based on the channel state information.

17. An apparatus as claimed in claim 16, wherein said modulation encoder and said weighting block maintain a constant bit error rate for at least one or more subcarriers of the signal.

18. An apparatus as claimed in claim 16, wherein said weighting block turns off subcarriers of the signal with lower gain values.

19. An apparatus as claimed in claim 16, wherein the modulation encoder is a trellis coded modulation encoder.

20. An apparatus as claimed in claim 16, wherein said modulation encoder selects a modulation on a subcarrier when a signal-to-noise ratio per subcarrier of the communication channel is greater than a predetermined value, and selects another modulation when the signal-to-noise ratio per subcarrier of the communication channel is less than a predetermined value.